**Guide Specification**

**TYPE: LINEA VENEER FLAT PANEL**

**PROJECT:** **<Insert>**

09 54 26 – WOOD CEILINGS

09 84 33 – SOUND ABSORBING WALL UNITS

06 20 00 – ARCHITECTURAL WOODWORK

**PART 1 – GENERAL**

* 1. **SUMMARY**
1. Section Includes:
2. Concealed suspension system for Wood Ceiling and Wall Panels.
3. Wood Ceiling and Wall Panels for concealed suspension system.
4. Trim and accessories
5. Seismic restraints for suspended ceiling system
	1. **RELATED WORK IN OTHER SECTIONS:**
6. Division 1 – “General Conditions” for substitution requests, submittals, etc.
7. Division 9 – “Acoustic Ceilings.”
8. Division 13 – “Integrated Assemblies.”
9. Division 15 – “Mechanical” for work to be coordinated with ceiling.
10. Division 16 – “Electrical” for light fixture coordination.
	1. **REFERENCES**
11. .1 ASTM International (ASTM):
12. .1 ASTM A641/A641M-19 – Standard Specification for Zinc Coated (Galvanized) Carbon Steel Wire.
13. .2 ASTM C423-22 – Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
14. .3 ASTM C635/C635M-22 – Standard Specifications for Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
15. .4 ASTM C 636/C636M-19 – Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
16. .5 ASTM E84-21a – Standard Test Method for Surface Burning Characteristics of Building Materials.
17. .6 ASTM E 580/E580M-22 – Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions.
18. .7 ASTM E 1264-22 – Standard Classification of Acoustic Ceiling Products.
19. .2 Architectural Woodwork Manufacturers Association of Canada (AWMAC):
20. .1 AWI/AWMAC – Architectural Woodwork Quality Standards Illustrated, current edition.
21. .3 Ceiling and Interiors Systems Construction Association (CISCA):
22. .1 CISCA – Ceiling Systems Handbook, current edition.
23. .4 National Building Code of Canada, Alberta edition 2019.
	1. **QUALITY ASSURANCE**
24. Manufacturer Qualifications: Manufacturers other than those listed in Paragraph 2.1 are required to submit for approval prior to bidding per Section One.
25. Installer Qualifications: Engage an experienced Installer, approved by wood ceiling manufacturer, who has completed panel ceilings similar in species, design, and extent to that indicated for this Project and with a record of successful in-service performance.
26. Inspection: All work must pass inspection and approval of architect, as well as the local codes and regulations or authorities having jurisdiction.
27. Single-Source Responsibility for Wood Ceiling and Wall System: Obtain each type of Wood Ceiling and Wall Panels from a single fabricator, with in-house Shop Drawing capabilities, in-house assembly and finishing capabilities, and with resources to provide products of consistent quality in appearance and physical properties without delaying the project.
28. Single-Source Responsibility for Suspension System: Obtain each type of suspension system from a single source with resources to provide products of consistent quality in appearance and physical properties without delaying project.
29. Pre-Installation Conference: Conduct conference at Project site to comply with requirements of Division 1 Section "Project Meetings."
	1. **SUBMITTALS**
30. General: Submit each item in this Section according to the Conditions of the Contract and Division 1 Specification Sections.
31. Product Data: For each type of product specified.
32. Samples: For verification of each type of exposed finish required, prepared on samples of size indicated below. Where finishes involve normal color and texture variations, include sample sets showing the range of variations expected

1. 12” x 16” samples of each panel type, pattern, and color.

* 1. **SHOP DRAWINGS & COORDINATION WITH OTHER TRADES**
1. Shop Drawings: Provide Shop Drawings/Coordination Drawings for all ceilings, which should include RCP and product details. Coordinate layout and installation of wood panels and suspension system components with other construction elements that penetrates ceilings, walls or is supported by them, including light fixtures, HVAC equipment, fire-suppression system components, partition assemblies and all perimeter conditions.
	1. **PROJECT CONDITIONS**
2. Space Enclosure and Environmental Limitations: Do not install wood panel until spaces are enclosed and weatherproof, wet-work in spaces is completed and dry, work above ceilings is complete, and ambient temperature and humidity conditions are being maintained at the levels indicated for Project when occupied for its intended use.
	1. **DELIVERY, STORAGE, AND HANDLING**
3. Delivery & Unloading: Coordinate crate sizes, weights, unloading options, and delivery schedule with manufacturer prior to fabrication. Deliver wood panels and suspension system components to Project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other mistreatment.
4. Acclimatization: Before installing wood panels, permit them to reach room temperature and a stabilized moisture content (at least 72 hours) per AWI standards.
5. Handling: Handle Wood Ceiling and Wall Panels carefully to avoid chipping edges or damaging units in any way.
6. Protection:
7. Personnel: Follow good safety and industrial hygiene practices during handling and installing of all products and systems, with personnel to take necessary precautions and wear appropriate protective equipment as needed. Read related literature for important information on products before installation. Contractor to be solely responsible for all personal safety issues during and subsequent to installation; architect, specifier, owner, and manufacturer will rely on contractor’s performance in such regard.
8. Existing completed work: Protect completed work above suspension system from damage during installation of suspension system components.
	1. **EXTRA MATERIAL/WARRANTIES**
9. Extra Materials: Furnish extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels clearly describing contents.
10. Wood Wall and Ceiling Panels: Furnish quantity of full-size units equal to 2.0 percent of amount installed.
11. Suspension System Components: Furnish quantity of each component equal to 2.0 percent of amount installed.
12. Warranties: Provide owner with a (1) year warranty for material and workmanship on all installed products.
13. Manufacturers: All materials, wood panels and grid, shall be warranted for (1) one year for material and workmanship.
14. Installer: All work shall be warranted for (1) year from final acceptance of completed work

**PART 2 – PRODUCTS**

* 1. **WOOD CEILING AND WALL PANELS AND SUSPENSION SYSTEM**
1. General: The following manufacturer is basis of design:
2. LINEA Ceiling & Wall Systems

2320 Peardonville Road, Abbotsford, BC, Canada, V2T 6J8

Ph. 1-604-776-2265 / Website: www.LineaCeilings.com / Email: Sales@LineaCeilings.com

1. Or equal, as prior approved by architect.
2. Substitutions: Not permitted
	1. **WOOD CEILING AND WALL PANELS**
3. Product: LINEA VENEER FLAT PANEL – Z CLIP
4. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
5. Veneer: <Insert wood specie and grain required>
6. Core: 3/4" Particleboard <MDF>
7. Edge: Square; Raw <Square w/ matching edge band>
8. Panel Size: Nominal up to 4x10 <Custom per drawings>
9. Style: <Non-Perforated, Perforated, Slotted, Kerf, MicroPerf, Squared, Custom>
10. Pattern: <N/A or Insert desired pattern from LINEA product suite>
11. Face Texture: Smooth <LINEA Textured>
12. Color: Natural <Stain, Tint, or Painted to match architect sample>
13. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen
14. Acoustic Backer: SoundTex, Factory Attached <N/A for Non-Perforated>
15. Fire Rating: Class A <Class C>
16. Install Method: Z-clips for concealed mounting to furring strips
17. Reveal: Per drawings
18. Product: LINEA VENEER FLAT PANEL – LAY IN
19. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
20. Veneer: <Insert wood specie and grain required>
21. Core: 3/4" Particleboard <MDF>
22. Edge: Square; Raw <Square w/ matching edge band>
23. Panel Size: <Nominal 1x4, 1x6, 2x2, 2x4, 2x6> <Custom per drawings>
24. Style: <Non-Perforated, Perforated, Slotted, Kerf, MicroPerf, Squared, Custom>
25. Pattern: <N/A or Insert desired pattern from LINEA product suite>
26. Face Texture: Smooth <LINEA Textured>
27. Color: Natural <Stain, Tint, or Painted to match architect sample>
28. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen
29. Fire Rating: Class A <Class C>
30. Acoustic Backer: SoundTex, Factory Attached <N/A for Non-Perforated>
31. Install Method: Lay in modular suspension to grid
32. Reveal: 15/16” <9/16”>
33. Product: LINEA VENEER FLAT PANEL – TEGULAR LAY IN
34. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
35. Veneer: <Insert wood specie and grain required>
36. Core: 3/4" Particleboard <MDF>
37. Edge: Square w/ matching edge band <Square w/ Rabbet>
38. Panel Size: <Nominal 1x4, 1x6, 2x2, 2x4, 2x6> <Custom per drawings>
39. Style: <Non-Perforated, Perforated, Slotted, Kerf, MicroPerf, Squared, Custom>
40. Pattern: <N/A or Insert desired pattern from LINEA product suite>
41. Face Texture: Smooth <LINEA Textured>
42. Color: Natural <Stain, Tint, or Painted to match architect sample>
43. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen
44. Fire Rating: Class A <Class C>
45. Acoustic Backer: SoundTex, Factory Attached <N/A for Non-Perforated>
46. Install Method: Lay in modular suspension to grid with Linea Z-Clips
47. Reveal: 15/16” <9/16”>
48. Product: LINEA VENEER FLAT PANEL – MACHINED TEGULAR
49. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
50. Veneer: <Insert wood specie and grain required>
51. Core: 3/4" Particleboard <MDF>
52. Edge: Square, Machined w/ matching edge band
53. Panel Size: <Nominal 1x4, 2x2, 2x4> <Custom per drawings>
54. Style: <Non-Perforated, Perforated, Slotted, Kerf, MicroPerf, Squared, Custom>
55. Pattern: <N/A or Insert desired pattern from LINEA product suite>
56. Face Texture: Smooth <LINEA Textured>
57. Color: Natural <Stain, Tint, or Painted to match architect sample>
58. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen
59. Fire Rating: Class A <Class C>
60. Acoustic Backer: SoundTex, Factory Attached <N/A for Non-Perforated>
61. Install Method: Lift, shift and self-register modular suspension to grid
62. Reveal: 1/4”
63. Product: LINEA VENEER FLAT PANEL – LINEA LOCK
64. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
65. Veneer: <Insert wood specie and grain required>
66. Core: 3/4" Particleboard <MDF>
67. Edge: Square, Machined w/ matching edge band
68. Panel Size: <Nominal 2x2 to 2x8, 3x2 to 3x5, 4x2 to 4x4> <Custom per drawings>
69. Style: <Non-Perforated, Perforated, Slotted, Kerf, MicroPerf, Squared, Custom>
70. Pattern: <N/A or Insert desired pattern from LINEA product suite>
71. Face Texture: Smooth <LINEA Textured>
72. Color: Natural <Stain, Tint, or Painted to match architect sample>
73. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen
74. Fire Rating: Class A <Class C>
75. Acoustic Backer: SoundTex, Factory Attached <N/A for Non-Perforated>
76. Install Method: Lift, shift, and lock modular suspension to grid with LINEA Lock Clips
77. Reveal: 3/8”
78. Product: LINEA VENEER FLAT PANEL – C-HANGER
79. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
80. Veneer: <Insert wood specie and grain required>
81. Core: 3/4" Particleboard <MDF>
82. Edge: Square, Machined w/ matching edge band
83. Panel Size: <Nominal 2x2, 2x4, 2x6, 2x8> <Custom per drawings>
84. Style: <Non-Perforated, Perforated, Slotted, Kerf, MicroPerf, Squared, Custom>
85. Pattern: <N/A or Insert desired pattern from LINEA product suite>
86. Face Texture: Smooth <LINEA Textured>
87. Color: Natural <Stain, Tint, or Painted to match architect sample>
88. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen
89. Fire Rating: Class A <Class C>
90. Acoustic Backer: SoundTex, Factory Attached <N/A for Non-Perforated>
91. Install Method: Modular suspension to grid with LINEA C-Hanger Clips
92. Reveal: 3/8”
93. Product: LINEA VENEER FLAT PANEL – T-HOOK
94. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
95. Veneer: <Insert wood specie and grain required>
96. Core: 3/4" Particleboard <MDF>
97. Edge: Square, Machined w/ matching edge band
98. Panel Size: <Nominal 2x2, 2x4, 2x6, 2x8> <Custom per drawings>
99. Style: <Non-Perforated, Perforated, Slotted, Kerf, MicroPerf, Squared, Custom>
100. Pattern: <N/A or Insert desired pattern from LINEA product suite>
101. Face Texture: Smooth <LINEA Textured>
102. Color: Natural <Stain, Tint, or Painted to match architect sample>
103. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen
104. Fire Rating: Class A <Class C>
105. Acoustic Backer: SoundTex, Factory Attached <N/A for Non-Perforated>
106. Install Method: Modular suspension to grid with LINEA T-Hook Clips
107. Reveal: 3/8”
108. Product: LINEA VENEER FLAT PANEL – TORSION SPRING
109. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
110. Veneer: <Insert wood specie and grain required>
111. Core: 3/4" Particleboard <MDF>
112. Edge: Square, Machined w/ matching edge band
113. Panel Size: <Nominal 2x2, 2x4, 2x6, 2x8> <Custom per drawings>
114. Style: <Non-Perforated, Perforated, Slotted, Kerf, MicroPerf, Squared, Custom>
115. Pattern: <N/A or Insert desired pattern from LINEA product suite>
116. Face Texture: Smooth <LINEA Textured>
117. Color: Natural <Stain, Tint, or Painted to match architect sample>
118. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen
119. Fire Rating: Class A <Class C>
120. Acoustic Backer: SoundTex, Factory Attached <N/A for Non-Perforated>
121. Install Method: Modular suspension to grid with LINEA Torsion Spring Clips
122. Reveal: 1/2”
123. Product: LINEA VENEER FLAT PANEL – BLIND PERFORATION
124. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
125. Veneer: <Insert wood specie and grain required>
126. Core: 3/4" Particleboard <MDF>
127. Edge: Square; Raw <Square w/ matching edge band>
128. Panel Size: Nominal up to 4x10 <Custom per drawings>
129. Style: Perforated
130. Pattern: <Insert desired Parallel or Staggered pattern from LINEA product suite>
131. Face Texture: Smooth <LINEA Textured>
132. Color: Natural <Stain, Tint, or Painted to match architect sample>
133. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen
134. Acoustic Backer: SoundTex, Factory Attached
135. Fire Rating: Class A <Class C>
136. Install Method: Concealed, Direct Screw through partial face perforations to support framing
137. Reveal: Per drawings
	1. **METAL SUSPENSION SYSTEMS, GENERAL**
138. Metal T-Grid Suspension System: Provide standard interior Metal Heavy Duty 15/16” <9/16”, 1-1/2”> suspension T-Grid system using Main Runners, Cross-tees, Wall Angle or Shadow Moldings of types, structural classifications, and <black> finishes indicated and that comply with applicable ASTM C 635 requirements. Comply with all applicable <seismic> codes and ordinances.
139. Attachment Devices: Size for 3 times the design load indicated in ASTM C 635, Table 1, Direct Hung unless otherwise indicated.
140. Wire, Braces, Ties, Hanger Rods, Flat Hangers and Angle Hangers: Provide wires, rods and hangers that comply with applicable ASTM specifications.
	1. **ACCESSORIES**
141. Z-Clips: Male/female aluminum attachment clips, like a French cleat but with a thinner profile, used to hang wood wall panels on furring strips. <insert if applicable>
142. LINEA Lock Clips: Suspension hangers that are direct-screwed to the panel and hang on the heavy duty-grid. Hangers are made of spring-steel with phosphate pre-treatment and corrosion-resistant coating. <insert if applicable>
143. C-Hangers: Suspension hangers that are direct-screwed to the panel and hang over the heavy duty-grid. Hangers are made of spring-steel with phosphate pre-treatment and corrosion-resistant coating. <insert if applicable>
144. T-Hooks: Suspension hangers that are direct-screwed to the panel and hang over the heavy duty-grid. Hangers are made of spring-steel with phosphate pre-treatment and corrosion-resistant coating. <insert if applicable>
145. Torsion Springs and Saddle Clips: Two parts of a suspension system in which the torsion spring is direct-screwed to the panel and compressed to attach to the saddle clip that is fitted over the heavy duty-grid. Springs and clips are made of spring-steel with phosphate pre-treatment and corrosion-resistant coating. <insert if applicable>
146. Matching perimeter trim to be supplied by wood ceiling manufacturer. <insert if applicable>
147. Touch-up Finish: Type and color to match wood panels <insert if applicable>
148. Pre-finished veneer edge banding to match wood panels<insert if applicable>
149. Safety and Fall Restraint Hardware
150. Acoustic Batt Insulation: Specified in Section <insert section> 1 inch thick <thickness determined b desired NRC rating> supplied and installed by Contractor. <insert if applicable>
	1. **FINISH**
151. Factory Finishing: Panel shall be factory-finished with manufacturer’s standard lacquer products per color selection by architect.
152. Due to the nature of real wood (variation in grain, texture and color) the finished product may range from light to dark affecting the look of the panels.

**PART 3 – EXECUTION**

* 1. **EXAMINATON**
	2. General: Examine substrates and structural framing to which ceilings attach or abut, with installer present, for compliance with requirements specified in this and other sections that affect ceiling installation and anchorage. Do not proceed with installation until unsatisfactory conditions have been corrected.
	3. **PREPARATION**
	4. Coordination: Furnish layouts for cast-in-place anchors, clips, and other ceiling anchors whose installation is specified in other Sections.
	5. Layout: Measure each ceiling area and establish the layout of Wood Ceiling Panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders and conform to the layout shown on reflected ceiling plans in accordance with wood ceiling manufacturer’s approved Shop Drawings.
	6. **INSTALLATION**
	7. General: Install LINEA VENER FLAT PANEL to comply with manufacturer's instructions and CISCA "Ceiling Systems Handbook."
	8. Attachments: Suspend ceiling hangers from building's structural members per manufacturer’s instructions and in compliance with all local codes and regulations.
	9. Installation of Metal T-Bar Grid: Install, align, brace, tie-off, mount, handle interferences, and space suspension T-Grid in accordance with suspension manufacturer’s instructions and in compliance with all local codes and regulations.
	10. Installation of LINEA VENEER FLAT PANEL: Install Wood Ceiling Panels in accordance with manufacturer’s installation instructions and in compliance with all local codes and regulations. Install with undamaged edges and fitted accurately to suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit, as required.
	11. Suspension Runners: Install suspension system runners so they are square and securely interlocked with one another. Install number and use on-center spacing per wood ceiling manufacturer’s instructions, as indicated on approved Shop Drawings and in compliance with all local codes
	12. **CLEANING**
	13. General: Clean exposed wood surfaces of wood ceiling panels. Comply with manufacturer’s instructions for cleaning and touchup of minor finish damage. Remove and replace wood ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage
	14. **INSPECTION**
	15. When LINEA Ceiling & Wall Systems wood ceiling panels have been completely installed, the owner and/or the owner’s representative shall inspect all finished surfaces of the wood ceiling system to validate that the work has been completed in compliance with these specifications. Any defect in meeting installation specifications shall be corrected by the installing contractor at no additional cost to the owner and/or LINEA Ceiling & Wall Systems.

**END OF SECTION**